III Storm Water Quality Management Plan (SQMP)
City of Malibu
FY 2011-2012

SQMP Implementation
III C. *Describe the status of developing a local SQMP.*

The City has been implementing the Countywide SQMP since adoption of this permit in 2001. Generally, the City finds the SQMP helpful in meeting permit requirements. Since other City regulations are more stringent (such as the Local Coastal Program (LCP)) and complement the relevant model programs in the SQMP, and in the interest of keeping consistent with regional partners, the City has not developed a local SQMP. However, through local efforts and coordinated work with the Watershed Management Committee (WMC), the City has engaged in programmatic enhancements to implement new programs and projects that will reduce/treat urban runoff. Those programmatic enhancements and updates have been reported on in the Receiving Water Limitations (RWL) Compliance Reports and status reports submitted by the City since the 2006-2007 Annual Report. Following submittal of the Reports, the City did not receive a request from the Regional Board to modify the RWL Compliance Report in accordance with Part 2. 3. b) of the MS4 Permit. Absent any such request from the Regional Board, the City has assumed that the measures described in the RWL Compliance Report are satisfactory to the Regional Board and that SQMP amendments are not necessary. Nevertheless, the new NPDES municipal draft permit has been released by the Regional Board for public comment and is scheduled to be adopted early this fall. Ideally any formal revisions to the SQMP or implementation of an equivalent or similar program would coincide with adoption of the new NPDES Permit Order.

III D. *Describe additional BMPs in addition to those in the countywide SQMP.*

Programmatic BMPs

The City, being adjacent to the coastal zone, is subject to an additional suite of strict regulations. Also, due to its proximity to such special natural resources as the coastline, coastal streams and the Santa Monica Mountains National Recreation Area, the City and community take pride in being good stewards and taking extra steps to protect those resources.

The City implements the LCP as a requirement of the California Coastal Commission. The City‘s LCP as certified by the California Coastal Commission includes a Land Use Plan (LUP) and Local Implementation Plan (LIP) that detail many environmental quality and protection standards, objectives and implementation measures for new development and redevelopment projects. Many of these development requirements are equally or more stringent than those imposed in the Development Planning Program of the SQMP. These include but are not limited to requirements for water conservation, minimizing impermeable surfaces, a stringent floor area ratio (FAR) of .15 (meaning only 15% of a commercial lot may be developed- one of the most stringent FARs in the State), protection of native vegetation, and landscaping with native vegetation. All landscape plans are reviewed by the City’s contract biologist to ensure compliance with vegetation requirements and the City’s landscape water conservation requirements.

In the 2009-2010 reporting year, the City produced *Guidelines for Runoff Management and Water Quality Mitigation Plan (WQMP) Preparation*, a manual to assist development applicants in understanding the requirements of the Standard Urban Stormwater Mitigation Program (SUSMP) and the LIP as it relates to water quality on development projects. The manual continues to be distributed to applicants and is available to be downloaded from the City's website. The Manual also helps to identify Low Impact Development (LID) resources. In addition to the priority projects specified in the SUSMP, the City requires a Water Quality Management Plan for all new development or redevelopment projects that include vineyards, orchards or confined animal facilities, regardless of size.

As part of the Local Coastal Plan review process the City conditions new development and redevelopment projects to prevent discharges and stormwater runoff into the Area of Special Biological Significance (ASBS), and requires the applicant to provide a drainage system/plan that incorporates LID practices and does not discharge directly or indirectly into the ASBS.

In addition, early in the current NPDES permit cycle the Cities of Malibu, Agoura Hills, Calabasas, and Westlake Village and the County of Los Angeles (collectively called the Watershed Management Committee as representatives of the Watershed Management Area) drafted the document "Plan Blue" to enhance the programs of the Countywide SQMP. The idea behind Plan Blue was to develop an urban runoff reduction plan through implementation of the SQMP in conjunction with enhancement programs specific to the Malibu Creek Watershed. The group intended this plan to be a regionally consistent, economically efficient approach that standardizes our water quality practices in this watershed. Although the County's SQMP has been implemented, the Watershed Management Committee hoped to enhance practices to best address the unique characteristics of the Malibu Creek and Other Rural Watersheds areas where this group has jurisdiction. As many major elements of Plan Blue were eventually incorporated into the Integrated Total Maximum Daily Load (TMDL) Implementation Plan for the Malibu Creek Watershed (Malibu Creek IP), the Plan has been superseded by Malibu Creek IP and other planning documents such as the Santa Monica Bay Beaches Wet-Weather Bacteria TMDL Implementation Plan for Jurisdictions 1 & 4, Integrated Regional Water Management Plan (IRWMP) and Regional Watersheds Implementation Plan (RWIP). However, the plan still exists as a programmatic design document. The WMC has acknowledged that this document remains a strong, relevant guidance document and the City will consider whether any sections of Plan Blue should be incorporated into the new SQMP with the new permit.

The City has also collaborated on development of regional implementation plans (as mentioned above) that expand the programs and projects aimed at reducing and eliminating sources of pollution. City staff reviewed all City ordinances related to water conservation and made amendments to provide stronger environmental protections, including revisions conforming to the State's mandated Model Water Efficient Landscaping Ordinance, incorporated into the Malibu Municipal Code as Chapter 9.22 Landscape Water Conservation. Reducing irrigation runoff has the added benefit of water quality protection. This is part of a partnership with West Basin Municipal Water District (WBMWD), discussed in more detail below. The City will also collaborate with other WMC Cities to incorporate any new programs as opportunities arise.

The City partners with WBMWD and Los Angeles County Waterworks District 29 (District 29) to implement water conservation ordinances and increase conservation efforts. Eliminating irrigation runoff helps eliminate potential pollutant transport. The Malibu Water Conservation

Partners Group was created several years ago as a result of increased coordination with the local water providers in response to the drought, and in recognition that saving water (by eliminating irrigation runoff) prevents water pollution. The Partners began as the City, District 29, WBMWD, and staff from Los Angeles County Supervisor Yaroslavsky's Office. This group has been educating the public that wasting water can pollute receiving waters, and wastes energy. The number of participating agencies has increased since its inception, adding in Resource Conservation District of the Santa Monica Mountains (RCDSMM), Las Virgenes Municipal Water District (LVMWD), and most recently Pepperdine University Center for Sustainability, Southern California Edison, and the Gas Company. With the addition of new partners, the group changed its name to the Malibu Area Conservation Coalition (MACC) and has been working on a mission statement and goals. A pilot outreach project in conjunction with WBMWD's project focusing on runoff elimination in a target watershed continued this reporting year with the availability of more rebates and incentives. The pilot project was started as a precursor (when State Proposition grant funding was frozen) to the City's Wildlife Road Drainage Improvements and Focused Area of Special Biological Significance (ASBS) Outreach grant project.

The State has now released previously frozen Proposition 84 grant funds and executed grant agreements allowing the City to proceed with its proposed ASBS projects. Through this grant,, the City has been implementing an additional outreach program since October of 2011. Specifically, the City hired a "Coastal Preservation Specialist" to conduct focused outreach in the community adjacent and tributary to the ASBS. The Specialist is focusing on eliminating dry-weather runoff and reducing pollutants that may be in stormwater. This focused outreach project must be completed by June 2014 in accordance with the grant agreement, as funds are not available after that. The project is showing some success through citizen involvement and awareness. By getting volunteer residents actively involved in stewardship through water conservation and eliminating runoff with incentives and programs offered by the agencies involved, these residents serve as role models and can encourage their neighbors to do the same. This project will be on-going through the 2012-2013 reporting year as well. Depending on the outcome of this watershed pilot project and outreach strategies employed, the program will be implemented citywide as resources and funding allow, although the incentive programs are always available Citywide.

It is important to note that on March 20, 2012, the State Water Resources Control Board adopted an exception to the Ocean Plan allowing stormwater and certain dry-weather discharges to the ASBS, and the City has been approved for coverage under this exception. With this exception, covered agencies are required to implement a suite of programs called "Special Protections" to preserve natural water quality in the ASBS, and implement related monitoring. The City is starting to comply with the rigorous compliance program, which includes eliminating non-authorized, non-stormwater discharges to ASBS, and other increased BMPs. The City has also already begun complying with the Special Protections with the implementation of two Proposition 84 funded projects which were previously mentioned and will be further described later. Lastly, the City is preparing to participate in a regional monitoring program in the upcoming wet season.

The City recognizes the importance of spill prevention and the role that proper regulation and wastewater system management plays in preventing sewage overflows that could contribute to water quality impairments. The City established an inspection and permitting program for Onsite Wastewater Treatment Systems (OWTS) with the adoption of City Ordinance 321, codified in

Malibu Municipal Code Chapter 15.14. Through effective management and repair/replacement of malfunctioning systems, the City has taken an aggressive approach to ensure that OWTS are properly functioning to prevent the potential for any spills, and further eliminate spills that would otherwise reach the storm drain system.

The City is now considered a leader in the State when it comes to regulation of Onsite Wastewater Treatment Systems (OWTS). The City signed a Memorandum of Understanding with the State for local management of OWTS with fewer than 2,000 gallons and at non-food service related facilities in the City of Malibu. Systems outside of this classification are managed by the LARWQCB. The City also developed several programs for tracking, inspecting and permitting OWTS.

A web-based data management tool has been created to provide oversight of 6,000 onsite wastewater treatment systems (OWTS) within the City. This data being collected on the OWTS within the City of Malibu will be shared with the RWQCB's Integrated Wastewater Information Management System;

Ordinance 321 a Comprehensive Onsite Wastewater Treatment System Inspection and Operating Permit Program Scheme was adopted on March 10, 2008 by the Malibu City Council. Following EPA guidance regarding management options, this program provides a means of system inventory, assurance of system functionality and system sustainability. This program requires that owners of real property served by an onsite wastewater treatment system (OWTS or septic system) obtain an inspection of the OWTS, apply for an operating permit, and make any necessary repairs or upgrades in accordance with the following schedule:

- New Developments—before a certificate of occupancy is issued
- Existing properties:
    - Whenever a permit for repair, alteration, replacement, renovation or relocation of an existing OWTS occurs
    - Whenever a remodeling or repair results in addition of plumbing fixtures or increase in load to the existing OWTS
    - Prior to any purchase or change in ownership
- Restaurants—by March 10, 2009
- Other commercial uses—by March 10, 2009
- Multi-family or Condominiums—by March 10, 2010

Once issued, renewal of operating permits, including a required inspection must occur according to the following schedule:

- Commercial or multifamily uses—every two years
- Single-family uses with alternative OWTS technology—every three years
- Single-family uses with conventional OWTS technology—every five years

All Inspectors must be registered and approved by the City of Malibu. To qualify as an Inspector they must possess a valid California License as a Certified Engineering Geologist, Registered Professional Geotechnical, Civil Engineer, or a Registered Environmental Health Specialist. All inspectors must have attended specific OWTS inspection training provided by a nationally recognized entity and a City sponsored training. Each component requires the successful completion of an examination. More information about the city's wastewater management

program can be found on the city's website at www.malibucity.org in the Environmental Programs Section featuring the Wastewater Management (Septic Systems) link. While not related to stormwater, it is worth noting that the Regional Board and the City of Malibu entered into another MOU in July 2011, memorializing additional elements of the City's wastewater management strategy for the Civic Center area, including phased implementation of a centralized wastewater treatment plant for the area.

The City continued its partnership with the Santa Monica Bay Restoration Commission and south bay cities this year to implement the Clean Bay Restaurant Program (see 11-12 MBU IV A- Outreach for more details). This is a certification incentive program where businesses that meet 100% of the criteria (which are beyond NPDES requirements) will be recognized as a Clean Bay Certified Business. To participate, the business must be inspected at least once annually. Relevant businesses have now undergone at least three years of inspections for this program.

Attachment 11-12 MBU II C- RWL identifies additional new programs.

Structural BMPs

Civic Center Stormwater Treatment Facility

In February 2007, the City of Malibu began operating its $5.8 Million Civic Center Stormwater Treatment Facility (SWTF), which is located on the north side of Civic Center Way, west of Cross Creek Road. This treatment facility is able to process up to 1,400 gallons per minute (gpm) of urban and stormwater runoff from the Civic Center Way/Cross Creek area. The runoff is pumped from Civic Center Way, Cross Creek Road and the Malibu Road storm drains to the treatment facility where it is filtered and disinfected through ozone treatment. This system diverts dry weather flows from City owned drains in the Malibu Creek Watershed to be treated, and eliminates these flows from being discharged to the creek or ocean. This treated water is not being discharged to the creek or ocean but is detained in Legacy Park (discussed later).

The Civic Center Stormwater System provides several benefits:

- Diversion pipelines intercept up to 1,400 gpm of runoff (that until February 2007 were untreated discharges to lower Malibu Creek Lagoon) and divert the flows to the SWTF.
- Eliminating summer dry weather discharges to Malibu Creek and Lagoon, which reduces the potential for dry-weather breaching of the berm separating Malibu Lagoon from the ocean. Protection of the public health of visitors to Surfrider Beach and two endangered fish species are thereby enhanced.
- Eliminating winter dry weather runoff discharges except after extreme storm events.
- The SWTF screens, filters and disinfects the diverted flows prior to discharge, including dry-weather and "first flush" stormwater runoff, which tend to have the most impaired water quality. These processes target the removal of trash, suspended solids, metals, and indicator bacteria (total coliform, fecal coliform, E. coli, enterococcus).
- The SWTF serves as the ultimate "treatment engine" in the Legacy Park Project, which provides a level of performance better than 100% compliance for dry and wet weather bacteria TMDLs.

- A valuable source of treated stormwater will be available for irrigation and other non-potable uses.

Legacy Park Project

The City of Malibu completed construction of the Legacy Park Project in October 2010. A multi-benefit project for the environment and the region, it responds to three critical needs:

- Protect the water quality of lower Malibu Creek and Lagoon and nearby beaches by screening, filtering, and disinfecting runoff from the local sub-watershed.
- Provide a regional public amenity that provides open space, valuable habitat, passive recreation, and environmental education opportunities in conjunction with water quality protection.
- Restore and provide riparian habitats

<u>Stormwater Improvements Aspects of Legacy Park</u>

The Legacy Park project increased the stormwater treatment capacity of the existing SWTF by diverting stormwater flows from existing storm drains to an 8 acre-feet (AF) detention pond located at the Legacy Park site. This pond temporarily stores runoff that is re-circulated through the SWTF, which in turn helps to attenuate the "peak" stormwater flow rates and maximizes the volume of stormwater that can be filtered and disinfected by the SWTF for use in irrigation. The detention pond is a key improvement that helps the City to achieve wet-weather TMDL compliance. Treated stormwater flows are reused to the maximum extent possible as an irrigation supply for Legacy Park and other nearby landscaping. In extreme circumstances, where treated flows exceed the capacity of the dispersal field, high quality water will be discharged to Malibu Creek. This scenario would generally occur during large rain events or back-to-back storms; however, because these flows are treated, they will meet TMDL water quality requirements for indicator bacteria. In its ultimate configuration, the Legacy Park project captures stormwater runoff from approximately 337 acres of the lower Malibu Creek watershed. It also incorporates all of the design elements listed below in the later section discussing Public Works Capital Improvement Projects (CIP) Design description.

The project focuses on the Malibu Lagoon sub-watershed area. Continuous hydrologic simulation modeling utilizing historical rainfall records predicts that the Legacy Park stormwater improvement project will bring the Malibu Civic Center watershed area into full compliance with Bacteria TMDLs.

While designing Legacy Park, simulation modeling indicated that a 4 AF detention pond, in conjunction with the existing Storm Water Treatment Facility, would provide on average, 15 or fewer annual (including wet weather) TMDL exceedances. The City opted to install a detention pond with a greater capacity. With the construction of an 8 acre-foot detention pond, the project wass predicted to provide the following benefits:

- Maximize capture and treatment of stormwater runoff within the entire 337 acre drainage area.
- Provide performance that exceeds TMDL requirements for the City of Malibu's potential discharges to Malibu Creek. TMDL regulations allow bacterial exceedances up to 17 days per year to account for large rain storms. This project is expected to result in fewer than 3 exceedance days per year (on average) in wet weather flows into Malibu Creek from the City of Malibu.
- The 8 AF detention pond is an integral part of these enhanced improvements.
- Allows capture and disinfection of water from storms with rainfall up to 0.75 inches in 24 hours, consistent with the SUSMP adopted by the Los Angeles Regional Water Quality Control Board in March 2000.
- Eliminates discharges to Malibu Creek from the City- eliminates dry weather discharges in summer and winter months, and prevents wet weather discharges except after extreme storm events.
- Elimination of any summer dry weather discharges reduces the potential for dry weather flows breaching of the berm separating Malibu Lagoon from the ocean in non-storm periods, which in turn protects the ecological habitat of the Tidewater Gobi, the Southern California steelhead trout and the public health of swimmers and surfers at Surfrider Beach.

Paradise Cove Stormwater Treatment Facility

The City applied for and was granted State funding to install a treatment device on Ramirez Creek to help to eliminate discharge of fecal indicator bacteria to the ocean at Paradise Cove. The City completed construction in June of 2010 on the Paradise Cove Stormwater Treatment Facility and held the ribbon cutting ceremony on June 28, 2010. The system, located in the private, channelized portion of the Ramirez Canyon Creek before it outlets at Paradise Cove Beach, was designed to treat all flows in the creek up to 900 gpm by sediment removal, filtration and disinfection. All flow greater than 900 gpm and up to approximately 3,600 gpm will have sediment removal only. This treatment device helps to eliminate fecal indicator bacteria from upstream natural sources which cannot be controlled. In addition, the City continues to investigate sources of bacteria and develop targeted outreach and programs to reduce the additional sources of pollution if any are identified.

Public Works Capital Improvement Projects (CIP) Design

In addition to the stormwater treatment improvements provided by the SWTF and Legacy Park projects, the City also incorporates stormwater treatment and runoff solutions into its other municipal projects.

Cross Creek Road Improvement Project- Completed construction in March 2008, provided an excellent example of how capital improvement projects can be constructed in a manner that protects against water quality degradation from stormwater runoff and maximizes the potential for water reuse. This environmentally superior project provided several benefits through design elements that the City will consider for all future CIP:

- Minimizes stormwater runoff with:

  - Permeable pavers for all on street angled vehicle parking.
  - Permeable pavers for all sidewalk areas.

- Incorporates an enhanced landscaping plan that will allow for increased stormwater infiltration and drought tolerant native plant species.

- Allows for the eventual connection to an irrigation supply that uses treated stormwater or recycled water that has been treated to Title 22 standards.

Trancas Canyon Park- Completed construction in July 2010, this park includes a dog park which serves as a BMP for a designated area for dogs to play which includes signage about picking up dog waste, "Mutt Mitts" for waste pickup, and a rigorous maintenance program to make sure the area remains clean. A large detention basin was constructed as part of the park to slow stormwater flows from the site and prevent pollutant discharge. The turf on the play fields is also subject to the City's careful turf management program as explained in the Public Agency Activities (Part 4.F) section of this Annual Report,

Proposition 84 ASBS Projects for Broad Beach and Wildlife Road- The City executed grant agreements with the State in May of 2011 for grant funding for drainage infrastructure improvement projects involving runoff reduction (through infiltration where feasible), biofiltration, treatment and targeted outreach programs in the ASBS. These construction projects are in the design phase and will eliminate all potential dry-weather runoff to the ASBS, and treat some wet weather flows. The Broad Beach project is proposed to be a "green street" type of retrofit, and the Wildlife Road project proposes to incorporate low impact development elements with drainage treatment improvements. The targeted outreach program began in October of 2011.